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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,197	06/28/2003	Armin Geurden	BM-132	7591

7590 09/21/2004
Friedrich Kueffner
Suite 910
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EXAMINER

BOSWELL, CHRISTOPHER J

ART UNIT PAPER NUMBER

3676

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Km

Office Action Summary

Application No.

10/609,197

Applicant(s)

GEURDEN, ARMIN

Examiner

Christopher Boswell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent Number 4,170,376 to Banerjea.

Banerjea discloses a locking assembly for motor vehicles having two rotary latches (53), two closing pieces (54), two locking elements (56) for holding the rotary latches in the closed position and a shaft (46) integrally formed with the two locking elements, where the shaft has a torsional stiffness in the rotational direction and a degree of flexibility in the axial direction (column 3, lines 38-57), as in claim 1, as well as a carrier (59) for supporting the locking elements and restoring springs (52), as in claim 11, where the shaft has two support pins (57) formed at the ends of the shaft, and two blind holes (column 3, lines 23-26), where the bearing pins are capable of being axially inserted in to the blind holes by temporarily bending the shaft, as in claim 12, and a clip (43) that cancels the flexibility of the shaft, as in claim 13.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banerjea, as applied above, in view of U.S. Patent Number 4,858,897 to Irifune.

Banerjea discloses the invention substantially as claimed. However, Banerjea does not disclose the structure of the flexible shaft. Irifune teaches of a flexible shaft having alternating sections of inflexible and flexible sections, as in claim 2, wherein two axial sections are of the same material (column 1, line 66-column 2, line 2), but have different profiles (figure 3), as in claim 4, where the inflexible sections are comprised of discs (figures 1 and 2) which are connected by radial webs (7 and 7'), as in claim 6, where the discs have a circular outline (figures 4 and 5) and the webs extend across the diameters of the discs, as in claim 7, the successive webs are offset, perpendicular (column 2, lines 7-11) relative to each other, as in claims 8 and 9, and the shaft has a lamellar structure, as in claim 10 in the analogous art of shafts for rotational power transmission for the purpose of permitting power transmission with a uniform torque free of any backlash irrespective of whether the torsional force acts in the forward or reverse direction (column 1, lines 37-41). It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the shaft of Irifune in to the lock assembly of Banerjea in order to permit power transmission with a uniform torque free of any backlash irrespective of whether the torsional force acts in the forward or reverse direction.

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Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banerjea and Irifune as applied to claims 1, 2, and 4 above, and further in view of U.S. Patent Number 6,203,437 to Durie et al.

Banerjea and Irifune disclose the invention substantially as claimed. However, Banerjea and Irifune do not disclose the material of the shaft being plastic. Durie teaches of a shaft having flexible and inflexible axial sections (figure 1) that are integral parts of a single unit (figure 1), but of different materials (column 2, lines 51-58), where metal and plastics are art recognized equivalents, as in claims 3 and 5, in the analogous art of shafts for rotational power transmission for the purpose of easing in the manufacture of the shafts. It would have been obvious to one with ordinary skill in the art at the time the invention was made to use plastic for the shaft as disclosed by Banerjea and Irifune in order to ease in the manufacture of the shaft.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to lock assemblies with rotary latches and flexible shafts:

U.S. Patent Number 5,232,073 to Bronowicki et al., U.S. Patent Number 4,449,955 to Watanabe et al., U.S. Patent Number 4,043,546 to Ashfield et al., U.S. Patent Number 3,989,289 to Ringe, U.S. Patent Number 3,134,618 to Heimann, U.S. Patent Number 3,128,120 to Fournier et al., European Patent Number 568,514 to Rosengren.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Boswell whose telephone number is (703) 305-4067. The examiner can normally be reached on 8:30 - 5:00 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink that reads "Daniel P. Stodola". The signature is fluid and cursive, with the first name "Daniel" being more prominent than the last name "Stodola".

CJB 
September 17, 2004

DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600